

STATE OF WYOMING
DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND INJECTION CONTROL PERMIT ISSUED UNDER
WYOMING WATER QUALITY RULES AND REGULATIONS
CHAPTER 16

CLASS V INJECTION WELL

- () New
- () Modified
- (X) Renewal

Permit Number: **14-141**
Previous Permit: UIC 02-338
Facility Number: WYS-037-079
State Subclass: 5E3

In compliance with the Wyoming Environmental Quality act (W.S. 35-11-101 through 1104, specifically 301(a)(i) through 301 (a)(iv), Laws 1973, Ch. 250, Section 1) and Wyoming Water Quality Rules and Regulations, Chapter 16.

Applicant: Wyoming Department of Transportation
(Granger Maintenance Station)
50 CR 4-16
Granger, WY 82934
(307) 875-4816

Wyoming Department of Transportation, hereafter referred to as the permittee, is authorized to continue operating the septic system located in the NE1/4 of the NE1/4, of the NE/14 of Section 30, Township 19 North, Range 111 West, of the 6th Principal Meridian, Sheridan County. The permittee is allowed to operate the facility according to the procedures, conditions of application 14-141, including the conditions and requirements of this permit. This permit shall become effective on date of issuance and is valid for ten (10) years.

Kevin Frederick, Administrator
Water Quality Division
Herschler Building, 122 West 25th Street
Cheyenne, WY 82002

Date

Todd Parfitt, Director
Department of Environmental Quality
Herschler Building, 122 West 25th Street
Cheyenne, WY 82002
NT/rm/14-0937

Date

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A. Discharge Zone

The injection facility is authorized to inject an average of 2,448 gallons per day, and a maximum of 4,080 gallons per day into two (2) sanitary leach fields. The south leach field will receive domestic waste from four (4) mobile home sites. The north leach field will receive domestic waste from three (3) houses and from the maintenance office. The primary treated wastewater is injected into the Alluvial Aquifer along the Black's Fork River. Depth to groundwater in the vicinity of the leach field is approximately thirty (30) feet.

B. Well and Area of Review

The injection wells authorized by this permit are located as follows:

Section 30, Township 19 North, Range 111 West, of the 6th Principal Meridian, Sheridan County.

The Area of Review is defined as a circular area of 360 acres with the injection facility located near its center. The Area of Review is based upon the following assumptions:

Table 1 (Area of Review Inputs)

Description	Inputs	Units
Permit Duration	10	Years
Porosity	20	Percent
Maximum Injection Rate	4,080	GPD
Thickness of Receiver	30	Feet
Area of Review	360	Acres
Hydraulic Conductivity	10	Feet/Day

C. Groundwater Classification

The groundwater in the unconfined alluvial aquifer beneath the permittee's property is classified as Class I according to Wyoming Water Quality Rules and Regulations, Chapter 8. This classification is made because the groundwater in this formation is being withdrawn for domestic use at nearby points of withdrawal.

Ground water of Class I is suitable for domestic use and shall not be degraded to make it unusable as a source of water for this purpose. An aquifer that contains less than 10,000 mg/L total dissolved solids (and is not exempted) can be considered an underground source of drinking water.

D. Authorized Operations

The operator is authorized to inject at a pressure of no more than atmospheric pressure as measured at the leachfields. This pressure is controlled by gravity drainage and is not required to be monitored. This does not preclude the operation of dosing pumps. The permittee is authorized to inject a combined average of 2,448 gallons per day and a combined maximum of 4,080 gallons per day. The wastewater is produced from employee housing and the maintenance office building. The primary treated wastewater is injected into the Alluvial Aquifer along the Black's Fork River. The wastewater is described as primary treated domestic sewage from two (2) septic systems.

If additional sewage flows are added beyond those identified in the permit application, the permittee must submit a revised application and receive a new permit prior to addition/modification of the leach field(s) or treatment system(s).

E. Hazardous Waste

This permit does not allow for the injection of any hazardous waste as defined in 40 CFR 261.3 and in Wyoming Solid Waste Management Rules and Regulations, Chapter 2. Injection of any substance defined as a hazardous waste, whether hazardous by listing or by characteristic is a violation of this permit.

No vehicle/mechanical work bays are authorized to discharge to this wastewater system under this permit. Disposal of automotive fluids and cleaning solvents into the Granger Maintenance Station septic systems is prohibited.

F. Proper Operation and Maintenance

The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit. The permittee shall operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes: effective performance, adequate funding, operator staffing and training, and laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this permit. The injection wells covered by this permit shall meet all construction requirements outlined in Wyoming Water Quality Rules and Regulations, Chapters 11, 16, and 25.

The permittee is required to operate in accordance with statements, representations and procedures presented in the complete permit application and supporting documents as accepted and approved by the Administrator. Any modifications which will result in a violation of permit conditions shall be reported by submission of a new or amended permit application and shall not be implemented until a new or modified permit has been issued. Injection into a well may not begin until construction is complete and the permit is approved.

G. Entry and Inspection

The permittee shall allow the Administrator (upon presentation of credentials and during normal working hours) to enter the premises where a regulated facility is located, or where records are kept under the conditions of this permit and inspect and photograph the discharge and related facilities, review and copy reports and records required by this permit, collect fluid samples for analysis, measure and record water levels, and perform any other function authorized by law or regulation.

H. Environmental Monitoring Program for Waters of the State

General Requirements:

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. A groundwater sample is considered representative of the aquifer being monitored when the well has been purged to remove stagnant water prior to collection of a sample for laboratory analysis. Purging can be considered complete when a sufficient volume of water has been removed from the well and stabilization of select groundwater parameters has been achieved. It is important to record the circumstances surrounding each sample collection event at your facility. These records can help resolve analytical discrepancies. Both purging methods below shall be used prior to sample collection:

a. Purge by Volume Method

Removal of a *minimum* of three casing volumes of water from the well should be completed prior to collecting a groundwater sample. Minimum purge volume can be calculated by the following equation:

$$\text{Minimum Purge Volume} = 3 * ((\text{Total Well Depth in feet} - \text{Depth to Water in feet}) * \text{Well Capacity})$$

Where Well Capacity (gallons per foot) is based on well diameter:

2 inch well = 0.163	6 inch well = 1.47
4 inch well = 0.653	8 inch well = 2.61

b. Stabilization of Parameters Method

Purging of groundwater until select field parameters have stabilized can be used to demonstrate that a representative sample was collected. Field parameters measured during purging should include at a minimum temperature, pH, and specific conductance. Field parameters should be measured after removal of every half casing volume of water.

$$\text{Half Casing Volume} = 0.5 * ((\text{Total Well Depth in feet} - \text{Depth to Water in feet}) * \text{Well Capacity})$$

Where Well Capacity (gallons per foot) is based on well diameter:

2 inch well = 0.163	6 inch well = 1.47
4 inch well = 0.653	8 inch well = 2.61

A minimum of six (6) parameter measurements should be collected. If field parameters have not stabilized between the last three readings, purging and parameter measurement should continue until stabilization has been achieved. Stabilization can be demonstrated by a variance of no more than +/- 10% for temperature and specific conductance, and +/- 0.2 standard units for pH.

2. The permittee shall retain records of all monitoring information including all calibration and maintenance records, copies of the reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample measurement, report, or application. This period may be extended by request of the Administrator at any time.
3. The permittee shall use electronic data deliverable (EDD) reporting when required by the Administrator.

4. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The initials or name(s) of the individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The time(s) analyses were initiated;
 - e. The initials or name(s) of the individual(s) who performed the analyses;
 - f. References and written procedures for the analytical techniques or methods used;
 - g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.
5. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
6. The permittee shall retain all records concerning the nature and composition of injected fluids until five (5) years after completion of any specified plugging and abandonment procedures. The administrator may require the owner/operator to deliver the records to the administrator at the conclusion of the retention period.
7. The permittee shall report any noncompliance which may endanger health or the environment within twenty-four (24) hours from the time the operator becomes aware of the circumstances. The report should include:
 - a. Any monitoring or other information which indicates that any contaminant may cause an endangerment to a usable groundwater of the state;
 - b. Any noncompliance with a permit condition or malfunction of the discharge (injection) system which may cause fluid migration into or between usable ground waters of the state;
 - c. A written submission shall be provided within five (5) days of the time the operator becomes aware of the circumstances. This written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
8. The permittee shall report all instances of noncompliance not reported otherwise, at the time monitoring reports are submitted.
9. The monitoring reports shall be submitted on forms provided by the Department. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than forty-five (45) days following each schedule date.

I. Requirements for Monitoring Waters of the State

The groundwater in the receiving formation shall be sampled and the following parameters analyzed according to the schedule identified in **Table 2**. The following parameters shall be analyzed semi-annually and reported annually:

Table 2 (Annual Groundwater Monitoring Schedule)

WELL NAME OR NUMBER	SAMPLING SCHEDULE	PARAMETER ANALYZED ¹	EPA METHOD	STANDARD METHOD	PERMIT LIMIT or UCL ⁵	HOLD TIME & TEMPERATURE
Monitor Wells MW01-2 (middle well) and MW01-3 (south well) (downgradient)	Semi-Annual (January-June) (July-December)	Ammonia as N (mg/L)	350.1	SM 4500-NH3	0.5	28 days / 4° C
		Nitrate-Nitrite as N (mg/L)	300.0; 353.1; 353.2; or 353.3	4500-NO3 or 4110	10	28 days / 4° C
		Chloride (mg/L)	300.0; 300.1; or 353.2	4110 B, 4140 B, or 4500-Cl	250	28 days / no specified temperature
		pH (standard units; s.u.)	150.1 or 150.2	4500-H+B	6.5-8.5	measure in the field at time of sample collection.
		Static Water Level (ft)	Steel tape			N/A
	Total Coliform Bacteria (colonies per 100 mL)	Presence/absence test	9221 or 9222	0 or "Absent"	24 hours / 4°C	
Only when total coliform test is positive ³		E. Coli Bacteria	1103.1	9223	0	6 hours / 4°C
Septic Tanks ²	Monthly	Maximum day volume (gpd)	Flow meter reading		4,080	N/A
	Annually	Sludge depth in tank (ft)	Visual		2	N/A

NOTES:

¹ All applicable chemical concentrations in this permit are expressed as total (not dissolved) in mg/L unless otherwise noted.

² The septic tanks are to be inspected annually and must be pumped as necessary based on sludge depth at bottom of the septic tanks, and at least once every five (5) years. A copy of the invoice for pumping the tanks is to be included with the annual report, if conducted. Sludge depth is not to exceed 24 inches in the septic tanks.

³ A positive test for the presence of total coliform may require a follow-on test to determine the concentration and specific type of bacteria in the water.

All annual reports are to be submitted within forty-five (45) days of the last day of each year (February 14th).

The upper control limits (UCL) in **Table 2** cannot be exceeded in any sample. Exceedance of these values is a violation of this permit and shall require notification under Section K of this permit. If the UCL is exceeded in a sample, additional monitoring wells may be required to determine whether groundwater has been impacted and to delineate the nature and extent of any contamination resulting from operation of the permitted facility.

J. Test Procedures

All samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. All required analyses shall be conducted in compliance with Wyoming Water Quality Rules and Regulations, Chapter 8, Section 7.

K. Records and Reports

The permittee shall furnish to the Administrator within a specified time any information which the Administrator may request relating to the operation of the facility, including copies of records required to be kept by this permit. The permittee shall retain copies of all records and reports required by this permit for a period of three (3) years following permanent well abandonment. After that time, those records shall be delivered to the Administrator for disposal or archive at his discretion. Confirmed noncompliance resulting in the migration of injected fluid into any zone outside the permitted receiver shall be reported to the Administrator within twenty-four (24) hours, and a written submission (via certified mail) shall be provided within five (5) days of the time the permittee becomes aware of the excursion. The written submission shall contain: a description of the noncompliance, the period of noncompliance, including exact dates and times, and if the noncompliance has not been controlled, the anticipated time it is expected to continue; and a list of the steps taken or planned to reduce, eliminate, and prevent the recurrence of the noncompliance. Confirmed noncompliance not already reported under this section shall be reported at the time monitoring reports are submitted. The reports shall contain the same information as required by the paragraph above. The permittee shall notify the Administrator thirty (30) days in advance of any planned alteration, conversion, or abandonment of the well covered by this permit.

L. Permit Actions

This permit is authorized for a period of ten (10) years. If the permittee wishes to continue injection after the expiration date of this permit he shall apply to the Administrator and obtain a new permit. The application should be submitted at least 180 days before the expiration date of this permit. Under this permit, the Department may consider injection after the expiration date a violation of the permit.

It shall not be a defense for the permittee in an enforcement action that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. The filing of a request by the permittee, or at the instigation of the Administrator, for permit modification, revocation, termination, or notification of planned changes or anticipated noncompliance shall not stay any condition of this permit.

After notice and opportunity for a hearing, a permit may be modified, suspended or revoked in whole or part during its term for cause which includes, but is not limited to any of the following:

1. Violation of this permit; or
2. Obtaining a permit by misrepresentation of facts in the application.

This permit will be reviewed at least once every five (5) years, and may be reviewed more frequently. A permit may be modified at any time as may be required, including for conformity with changes in regulations or standards which occur after the permit was issued. A permit may be modified in whole or part in order to apply more or less stringent standards; or prohibitions for toxic or other substances present in the permittees discharge as may be ordered by the Environmental Quality Council.

M. Abandonment

General Requirements:

1. The permittee shall notify the administrator at least thirty (30) days prior to abandonment of the facility.
2. An abandonment report, detailing the compliance with abandonment procedures outlined in the original application for coverage under this permit, or describing any deviations from the original plan, shall be submitted as soon as practicable after abandonment. The abandonment shall include reclamation of the well site.
3. Injection wells covered by this permit shall be abandoned in accordance with Wyoming Water Quality Rules and Regulations, Chapter 16, Section 12.

N. Duties of the Permittee

The permittee shall give advance notice to the Administrator as soon as possible of any planned physical alteration or additions, other than authorized operation and maintenance, to the permitted facility and receive authorization prior to implementing the proposed alternation or addition. The permittee shall furnish the Administrator within a reasonable time any information which the Administrator may request to determine whether cause exists for modifying, revoking, or reissuing, or terminating this permit, or to determine compliance with this permit; and to furnish to the Administrator upon request, copies of records required to be kept by this permit. Any modification which may result in a violation of a permit condition shall be reported to the Administrator, and any modification that will result in a violation of any permit conditions shall be reported to the Administrator through the submission of a new or amended permit application. The permittee shall report all instances where he becomes aware that he failed to submit any relevant facts in the permit application, or where he submitted incorrect information in a permit application or in any report to the Administrator, and shall promptly submit such facts or information.

If any cultural materials are discovered during construction, work in the area should halt immediately. The Administrator and the Wyoming State Historic Preservation Office shall be contacted (777-7697) and the materials shall be evaluated by an archaeologist or historian meeting the Secretary of the Interior's Professional Qualification Standards (48 FR 22716, Sept. 1983).

O. Signatories Requirement

All reports filed in conjunction with this permit shall contain the following certification:

“I certify, under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

All reports required by this permit and other requested information shall be signed as follows:

For a corporation – by a principal executive officer of at least the level of vice-president;

For a partnership or sole proprietorship – by a general partner or the proprietor, respectively;

For a municipality, state, federal, or other public agency – by either a principal executive officer or ranking elected official; or

By a duly authorized representative for any of the above. A person is a duly authorized representative only if:

1. The authorization is made in writing by one of the prescribed principals;
2. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
3. The written authorization is submitted to the Administrator.

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the Administrator prior to or together with any reports or information, to be signed by the new authorized representative.

P. Noncompliance

The permittee shall comply with all conditions of the permit. Any permit noncompliance constitutes a violation of Wyoming Water Quality Rules and Regulations, Chapter 16 and is grounds for enforcement action, permit termination, revocation, or modification. Conformed noncompliance resulting in an excursion shall be reported to the Administrator orally within twenty-four (24) hours, and a written submission shall be provided within five (5) days of the time the permittee becomes aware of the excursion. The written report shall contain the sections specified in Section K of this permit. Any permit noncompliance constitutes a violation of this permit.

The filing of any request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

Q. Permit Transfer

Any transfer of this permit shall be accomplished by the submission of the proper forms for permit transfer to the Administrator. Transfer of this permit must first be approved by the Administrator and the Director. No transfer shall be approved unless the proposed permittee agrees to bring any and all noncompliance issues into compliance with this permit. The permittee is alone responsible for the operation of the facility covered by this permit. Sale of the facility and subsequent operation of this facility by another is a violation of this permit unless a transfer of this permit has first been accomplished.

R. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege. This permit does not authorize injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

S. Severability

Nothing in this permit shall be construed to preclude the institution of any legal action or to relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation.

-End of Permit-